# How to setup a basic MetroLinq PtP bridge

A quick guide on what you need to do to get a pair of MetroLinq 60GHz bridge units added to the IgniteNet cloud and setup as a transparent bridge. In the example here, I've used the model ML25.-60-19 which is 2.5Gbps throughput units with a high gain directional antenna built in. I strongly suggest, if this is your first setup, that you do this with the units on a desk in the office i.e. NOT nailed up on some walls at a customers' site!
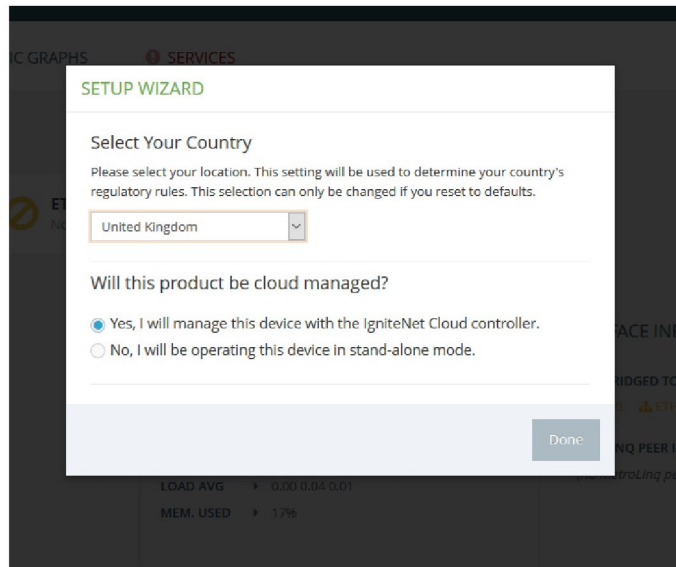
1. Connect 1st unit to your network. Please ensure you use the passive 48V PoE injector supplied with the product. Do NOT use a generic injector!
   If the units is not on the default settings (or unsure) then press the reset button (next to the SFP port) for 15 seconds.
   Allow a couple of mins for the unit to boot up.

2. Ultimately configuration will be done via the cloud system but first it's best to login into the units locally and upload the latest f/w.
   So use the IgniteNet Device Discovery tool to 'find' the device on your network. Go to (https://support.ignitenet.com/portal/kb/articles/discovery-tool-utility).
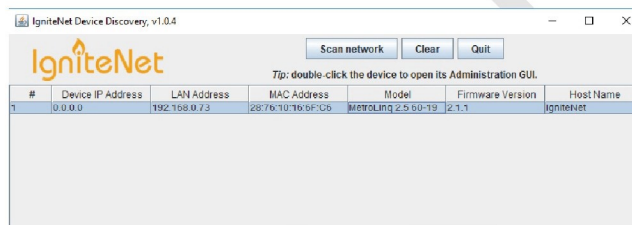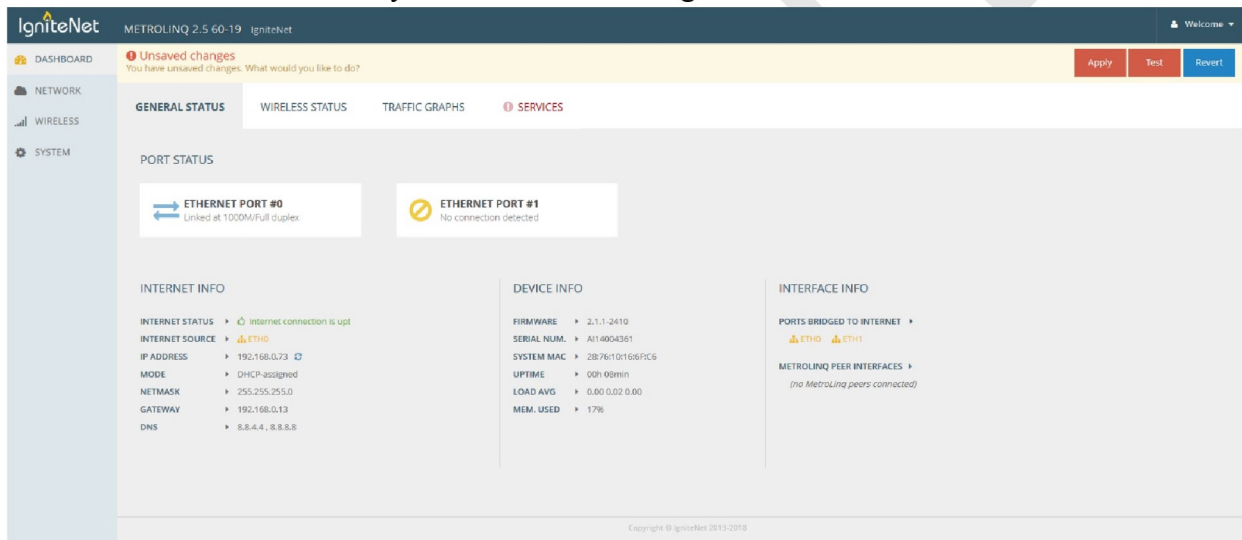

3. Double click on the 'found' unit and the login page should appear:
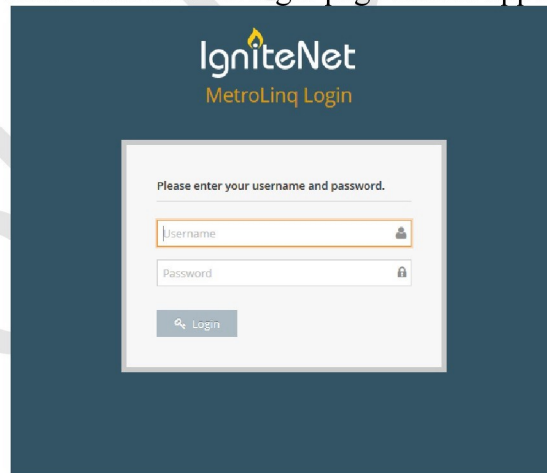
4. Login in using the default 'root' 'admin123' username and password. If the unit is on defaults then the 'wizard' popup will appear:
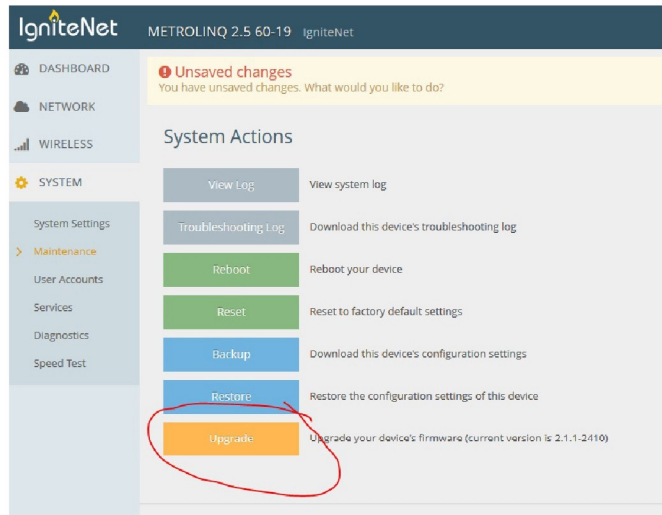

Select the correct country and tick Yes to manage via the cloud. Then 'Done'.

5. Okay so now goto
   https://support.ignitenet.com/portal/kb/articles/firmware-downloads-metrolinq-2-5
   and down load the latest f/w file. Ensure you download the f/w file for the actual units you are using.
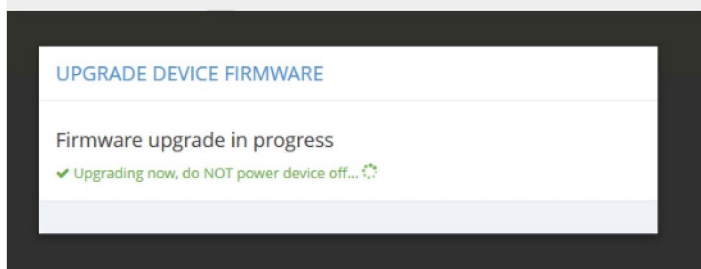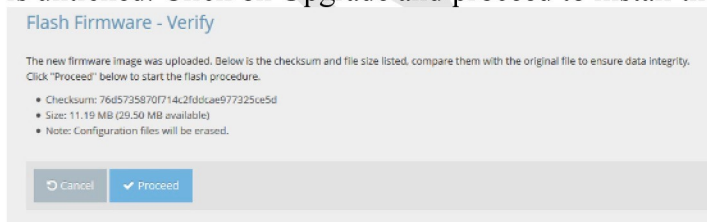
6. Click on System/Maintenance/Upgrade:

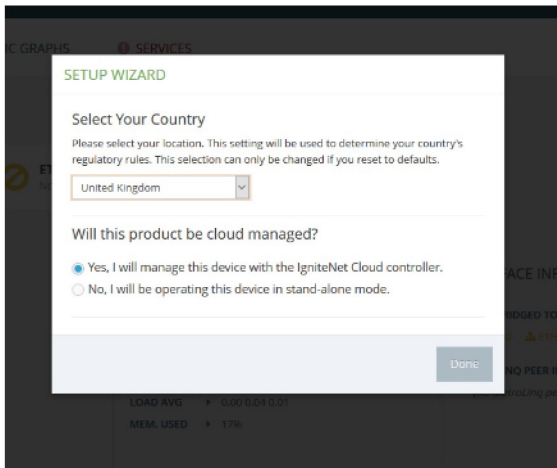7. On the Upgrade screen choose the f/w file you downloaded.
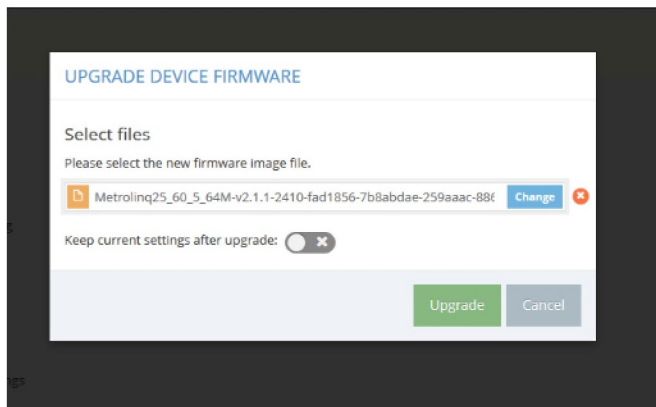
Ensure 'Keep current settings...'
is unticked. Click on Upgrade and proceed to install the new f/w file.


The unit should reboot....
Now log back into the unit and yet again it will start the wizard (because we told it to reset after the f/w upload) so just reselect the country and tick 'Yes....' and then click on 'Done'.

Firmware update is now done.
Now connect the second unit to your network and do the same update to that one.

8. Now we can proceed to cloud administration. So we need to go to the cloud login:
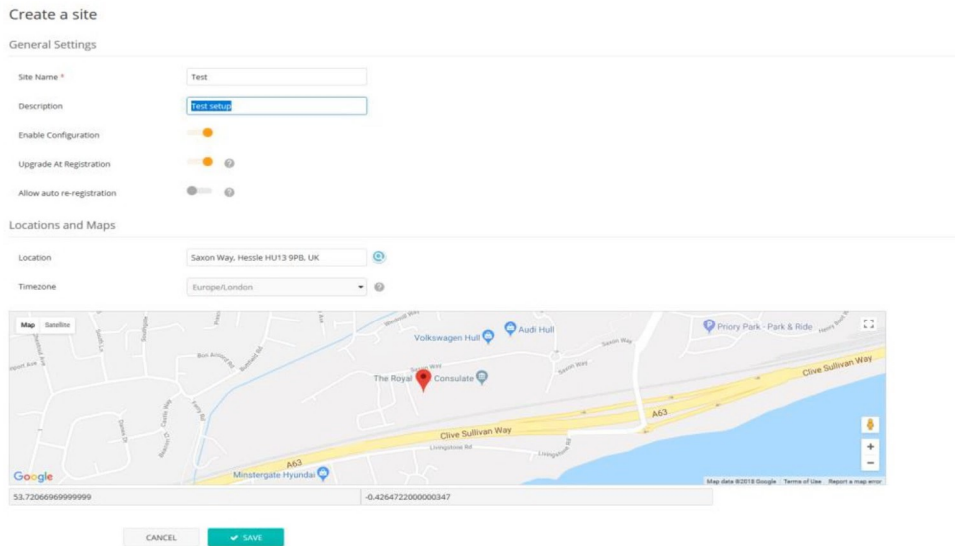https://cloud.ignitenet.com/welcome/login
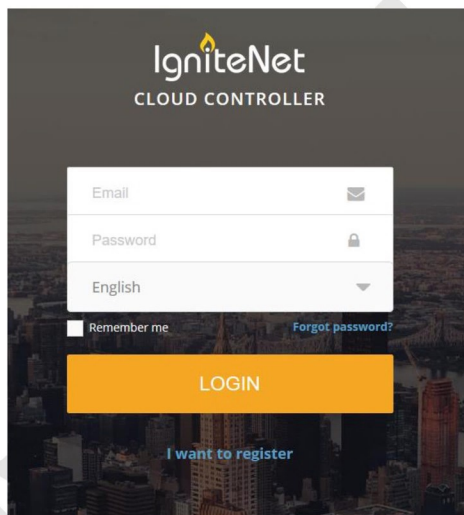
If you've already registered then enter your login details. Otherwise select 'I want to register' and go through the sign up process.
Click on Login.

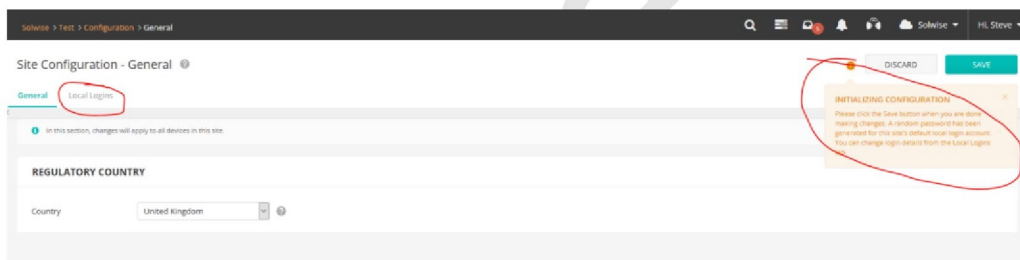9. This is the sort of thing you should see after login:
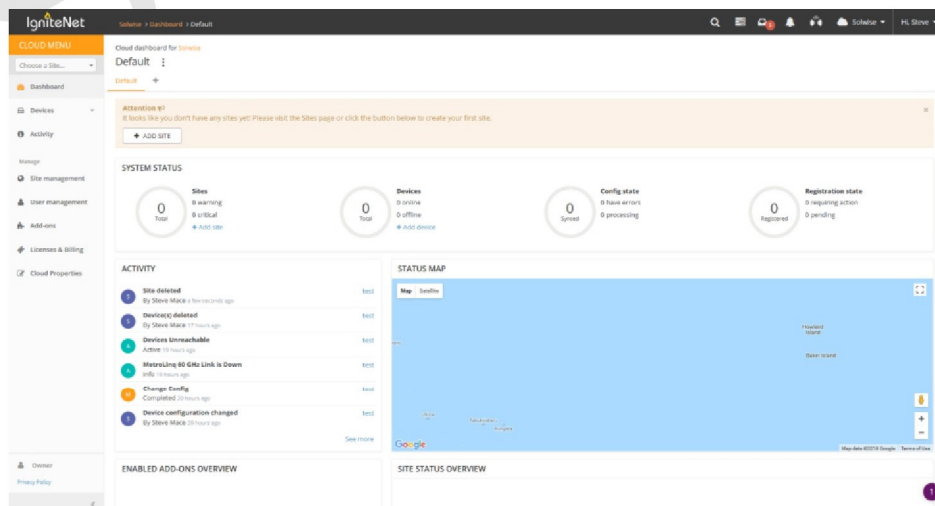
So click on the '+Add Site' button to start your first site.

10. Go through the configuration screen top to bottom entering the details. e.g.
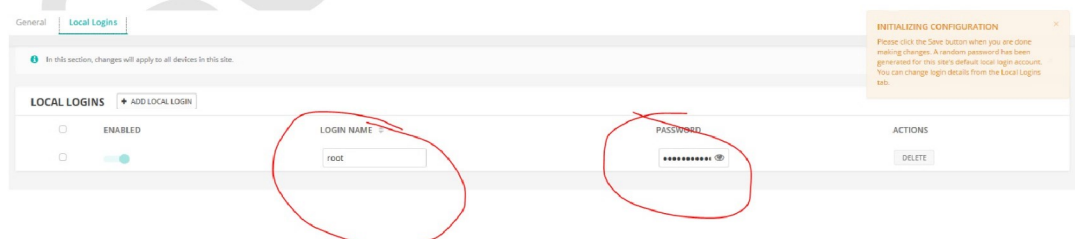

Then click on 'Save'.

11. So the General site configuration screen is now displayed:

Note the message on the top right. The important thing is the comment that the local login details for the units have been changed i.e. the default local login username password are no longer 'root' 'admin123'. This is the login to access the units directly (not via the cloud). This caught me out first time :-) So click on Local Logins so you can change the local login details to something more sensible:
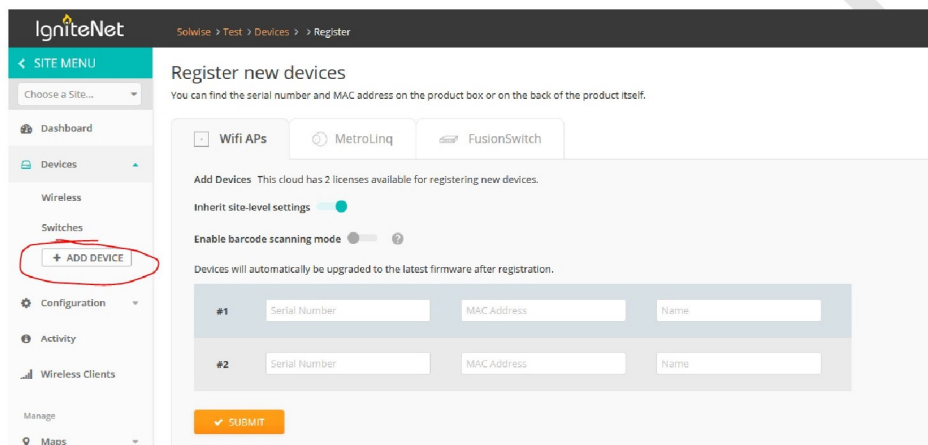

Once done click on 'Save' on the top right:
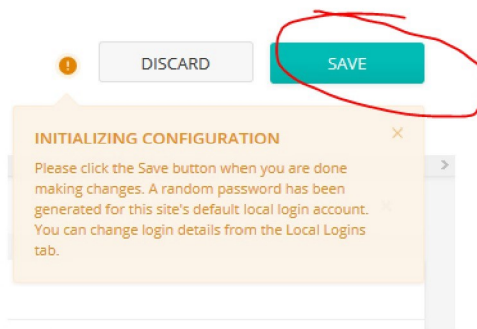
So now you're ready to start adding units to the 'site'.
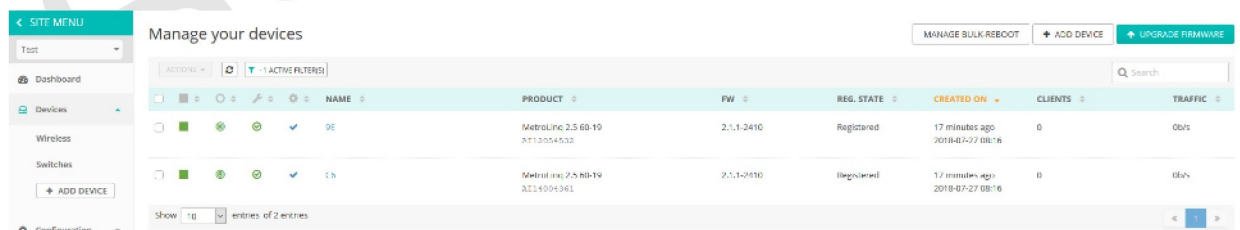
12. From the left hand menu select Devices/Add Device:

You will now need to enter the serial number and MAC address for each unit. Also enter a unit name.
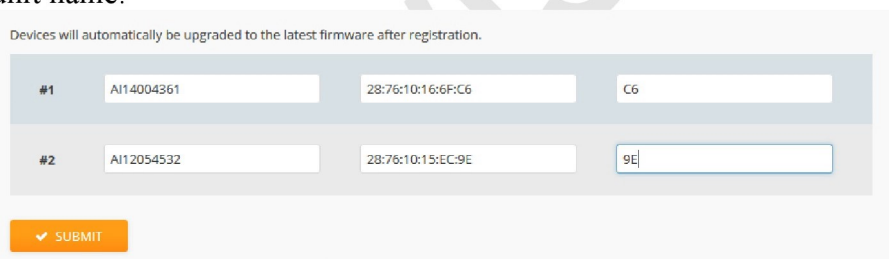
When done click on Submit and you should see something like this...

If the units don't show up registered like this then check you have the correct serial number mac address. Also check the units can 'see' the internet.

13. Okay so now you're ready to set the two units as a bridge PtP. A word of warning first: If you setup both units as a PtP bridge with each other and you do this on the same network what will happen..... routeing 101! The network will crash due to a traffic loop – think about it. So a simple trick is to connect one unit to your main network and then the second unit to a router which is connected to your main network e.g.
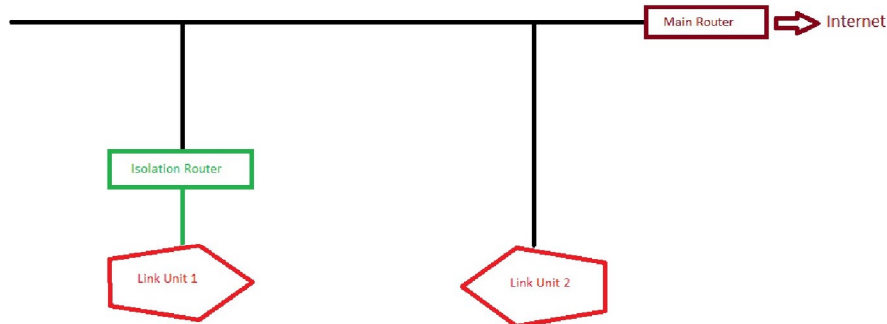
So the second router isolates the units so they are effectively on different networks so no loop! Of course you won't have this issue when you do the proper install at site because both ends will be separated.

With that out of the way you can now setup your bridge. So the way this is done is one is set as a Master and then the other(s)as Client. You can setup the connectivity so units connect based upon and also on BSSID. So let's set our 'Master' first of all. Now for a PtP link it doesn't really matter which end is which. For a Point to MultiPoint setup you would have the hub unit as the Master and the remote units as Clients.

Select one of the units for Master:
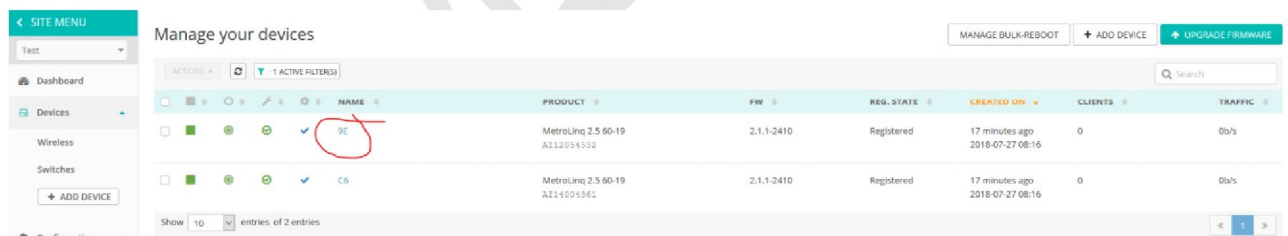
So click on the Name of the unit.

14. On the Device screen click on Configuration. Then Radio settings and then 60GHz

Then select Master
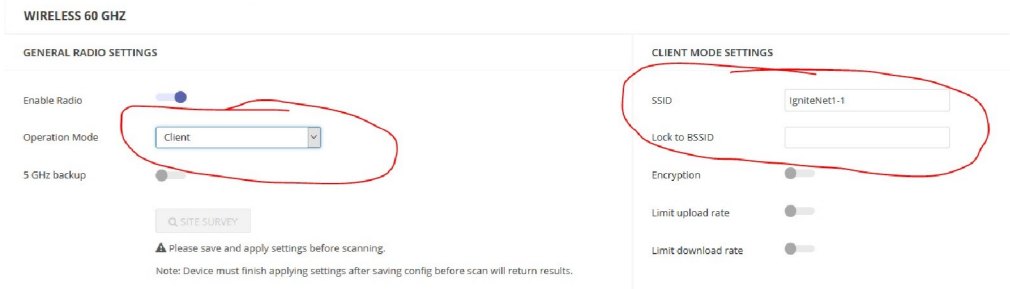

Now check the SSID value on the right hand side of the page. Remember units will link based upon the SSID so Master and Client(s) have to be the same SSID so ensure this is the same for all devices.
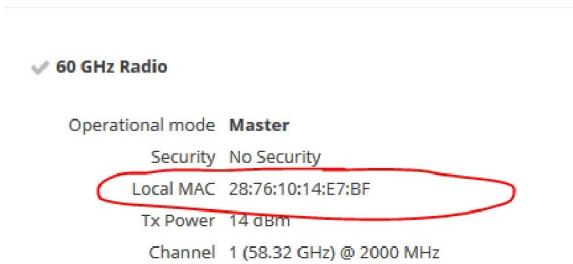
Once you've done your changes then select Save on the top right:

DISCARD   **✔ SAVE**
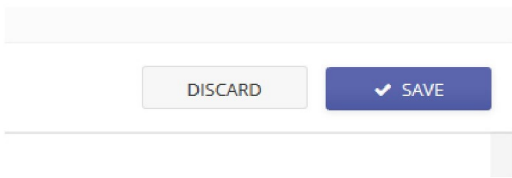
15. Now back to the Device Menu (top left button) and select the other unit. Then go down to the 60GHz setup again but this time select Client:

WIRELESS 60 GHZ

GENERAL RADIO SETTINGS

Enable Radio

Operation Mode   Client

5 GHz backup

🔍 SITE SURVEY

⚠ Please save and apply settings before scanning.

Note: Device must finish applying settings after saving config before scan will return results.

CLIENT MODE SETTINGS

SSID   IgniteNet1-1

Lock to BSSID

Encryption

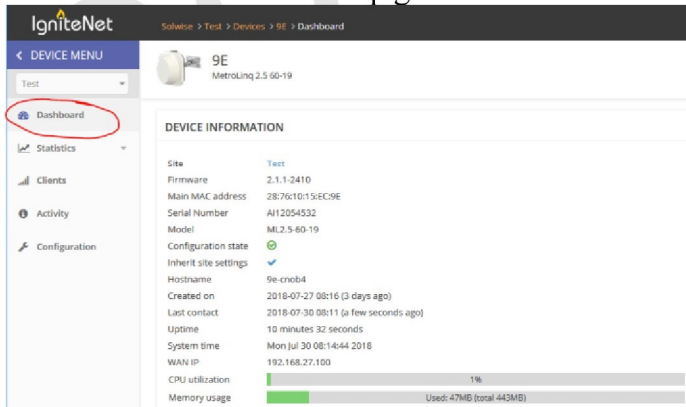Limit upload rate

Limit download rate

Check the SSID is the same as the Master. Also notice that you can enter the BSSID of the master if you want. This is the MAC address of the 60GHz interface and can be found on the Device Information page for the Master unit

✔ 60 GHz Radio

Operational mode **Master**
Security No Security
Local MAC 28:76:10:14:E7:BF
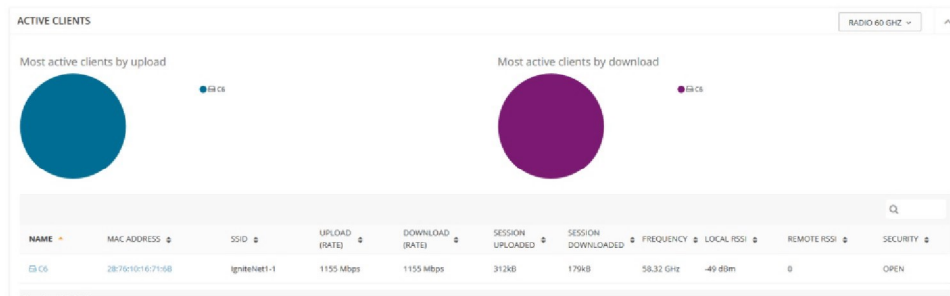Tx Power 14 dBm
Channel 1 (58.32 GHz) @ 2000 MHz

For a simple test I'd leave this blank and simply do a link based upon the WiFi SSID. Click on Save on the top right once the changes are done. So now the two units should connect as a transparent bridge; lan port to lan port.

16. To check the connection is up goto the Dashboard of the master device:

IgniteNet   Solwise > Test > Devices > 9E > Dashboard

< DEVICE MENU

Test

9E
MetroLinq 2.5 60-19

🎇 Dashboard

📈 Statistics

📶 Clients

ⓘ Activity

🔧 Configuration

DEVICE INFORMATION

Site   Test
Firmware   2.1.1-2410
Main MAC address   28:76:10:15:EC:9E
Serial Number   AI12054532
Model   ML2.5-60-19
Configuration state   ⊘
Inherit site settings   ✔
Hostname   9e-cnob4
Created on   2018-07-27 08:16 (3 days ago)
Last contact   2018-07-30 08:11 (a few seconds ago)
Uptime   10 minutes 32 seconds
System time   Mon Jul 30 08:14:44 2018
WAN IP   192.168.27.100
CPU utilization   1%
Memory usage   Used: 47MB (total 443MB)

Then scroll down to 'Active Clients'. You should see link stats for the connection client device and the current connection speed.

17. You have now set the units as a basic transparent bridge giving you lan port to lan port connectivity. Further tweaks you might consider are to lock down the connection of the client to the master by telling the client the BSSID (MAC address of the 60GHz interface) of the Master:

Also you might want to consider adding some encryption of the link data. That is also set in the General Radio Settings for each unit; obviously you have to set encryption on both Master and Clients to the same:

Job Completed 😊